

ABSTRACT

A welding robot for spot welding is disclosed. The welding robot is capable of grinding electrode tips promptly and clearly. The welding robot 1 includes a servo gun 5 provided at a front end of a multi-joint arm 2, in which a pair of electrode tips for the spot welding are installed, and a control unit 3 for controlling a servo motor 6 of the servo gun in a welding process or a grinding process of the electrode tips. A dresser 18 for grinding the pair of the electrode tips includes a servo motor 27 for rotating a grinding cutter 30. The control unit 3 controls the servo motor 27 of the dresser and controls the servo motor 6 of the servo gun in order to adjust a pressure of the pair of the electrode tips installed in the servo gun with respect to the cutter. In a finishing grinding process of the electrode tips, the speed of revolution of the cutter is increased and the pressure applied to the cutter is reduced relative to the speed and pressure applied in a rough finishing process.